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(54) **MACHINE LEARNING ASSISTED SATELLITE BASED POSITIONING**

(71) Applicant: **Apple Inc.**, Cupertino, CA (US)

(72) Inventors: **Benjamin A. WERNER**, San Jose, CA (US); **Brent M. LEDVINA**, San Francisco, CA (US); **Dennis P. HILGENBERG**, San Jose, CA (US); **Aarti SATHYANARAYANA**, Shoreview, MN (US)

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(57) **ABSTRACT**

A device implementing a system for estimating device location includes at least one processor configured to receive an estimated position based on a positioning system comprising a Global Navigation Satellite System (GNSS) satellite, and receive a set of parameters associated with the estimated position. The processor is further configured to apply the set of parameters and the estimated position to a machine learning model, the machine learning model having been trained based at least on a position of a receiving device relative to the GNSS satellite. The processor is further configured to provide the estimated position and an output of the machine learning model to a Kalman filter, and provide an estimated device location based on an output of the Kalman filter.